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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/766,252	01/19/2001	Douglas Dillon	PD-200286	8281

7590 01/13/2005

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EXAMINER

RAMAN, USHA

ART UNIT	PAPER NUMBER
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2616

DATE MAILED: 01/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/766,252

Applicant(s)

DILLON ET AL.

Examiner

Usha Raman

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 January 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-120 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-120 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 7, 8, 31, 62, 92, 95, 120 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 7, and 8 recite the limitation "said inputting". There is insufficient antecedent basis for this limitation in the claim because there is no prior reference of the step of inputting.

Claim 31, 62, 92, and 120 recite the limitation "the third content". There is insufficient antecedent basis for this limitation in the claim.

Claim 95 recites the limitations "said first switching device" and "said decrypter device" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 1-9, 17, 23-26, 29-35, 40, 48, 54-57, 60-65, 70, 78, 93, 98, 106, 112-115, 118-120 are rejected under 35 U.S.C. 102(e) as being anticipated by Wood et al. (US Pre Grant Pub. 2002/0054752).

Regarding claims 1 and 32, Wood discloses a system utilizing the method of creating a personalized video-on-demand service, comprising the steps of:

Receiving an electronic program guide with available content (see abs, page 2, [0026], [0035])

Receiving preferences indicating potentially desired content (i.e. selection criteria that is user defined and input through user interface, therefore indicating user preference. See page 2, [0028])

Scanning the electronic program guide for the potentially desired content (i.e. the processor 101 monitors criteria and channel guide to determine programs meeting user criteria or potentially desired content. See page 2, [0028], [0037])

Recording the potentially desired content located by said scanning (see [0028])

Aggregating a library of potentially desired content by iterating said scanning and recording steps (for example, Wood shows aggregating several shows of a particular series into a personal channel for the user. See page 3 [0039], [0051], and page 4 [0059])

Creating a database, which catalogs the potentially desired content (i.e. storing related metadata information along with programs, along with programs,

such as program descriptions, etc. which is catalog info for the program, that aids the user in making a decision on program to watch. See page 3 [0040], and page 4 [0064])

Selecting content from the database permitting on-demand viewing of the selected content from the library of potentially desired content by a user (i.e. using the metadata catalog information to assist user to make a decision on what recorded show to watch. See page 3, [0040]).

Regarding claim 33, as discussed above in claim 1, Wood discloses the step of receiving preferences indicating potentially desired content (See page 2, [0028])

Regarding claims 2 and 97, the system of Wood anticipates the method of creating a personalized video-on-demand service comprising the steps of determining a schedule of the potentially desired content, resolving conflicts in the schedule and recording the potentially desired content according to the resolved schedule. Specifically, Wood discloses that for simultaneous matches (i.e. conflict), if only single video input source is available, the highest priority program is determined and recorded (i.e. conflict is resolved by recording the most desirable program). On the other hand, if multiple sources are available, multiple programs are recorded simultaneously thereby resolving the conflict. Other forms of resource conflicts are resolved for example by deleting old stored programs to make room for newly recorded programs. See page 2, [0032], [0038], [0039], and page 3, [0043].

In further regards to claim 97, the steps disclosed are executed by processor 101, which is the control unit of the system. See [0024], [0025] on pages 2-3.

Regarding claim 3, the system of Wood further anticipates the method step of permitting a user to edit the library of potentially desired content (i.e. the user can be presented with a list of all shows that will be recorded and user can edit list by deleting shows they do not intended to record. See page 4 [0056])

Regarding claim 4, Wood teaches the step of permitting a user to organize the library of potentially desired content (i.e. organizing shows into personal channels. See page 4 [0059], [0060]).

Regarding claim 5, Wood teaches the step of permitting a user to add at least one comment to at least one portion of the library of potentially desired content (i.e. user can label personal channels, therefore the title of the portion of a particular library maybe labeled as 'comedy' by a user, thereby adding the user specified comment for the personal channel. See page 4 [0060])

Regarding claim 6, Wood teaches the step of waiting until the potentially desired content is about to be broadcast (i.e. the processor monitors to see when programs matching desired criteria is available. See page 2 [0037]) and synchronizing the recording according to said waiting step (i.e. when programs meeting criteria is available, programs are recorded, if no programs meeting criteria is available, processor continues to monitor, thereby 'synchornizing' recording according to waiting step. See page 2 [0038])

Regarding claim 7, Wood teaches the step of inputting criteria indicating one or more potentially desired content. (i.e. user indicates selection criteria for one or more shows to be recorded. See page 3 [0042], [0043])

Regarding claim 8, Wood teaches the step of determining potentially desired content selections based on previously selected content (i.e. based on fuzzy logic, a show with criteria matching a previously viewed show can be recorded, or shows can be recorded based on viewer response to liking to previously watched therefore previously selected shows. See pages 3-4 [0053], [0054])

Regarding claims 9, and 40, Wood teaches the step of recording on at least one storage medium (i.e. video signals are recorded to video storage 105. See page 2 [0028], [0029])

Regarding claims 17, 48, 78 and 106, Wood discloses the use of a hard disk storage medium, which is a magnetic device (see page 2 [0029]).

Regarding claims 23, 54, and 112, Wood teaches the step of creating a database entry for each program recorded on the at least one storage medium. See Wood page 3 [0040], page 4 [0064], where for each show recorded, metadata is created and stored.

Regarding claims 24, 55, and 113 Wood shows that the user can edit the database is manipulated by the user via a graphical user interface (i.e. the data in personal channel can be viewed and edited (such as labels, delete shows) by

the user via a graphical user interface i.e. a user interface that is displayed in order to allow the user to view or edit. See page 4 [0060], [0061], [0063]).

Regarding claims 25, 56, and 114, Wood discloses that each metadata is some form of description of the program such as category, cast, program description, and therefore each metadata entry describes the program with which it is associated. See page 3 [0040], page 4 [0064].

Regarding claim 26, 57, and 115, Wood discloses entry containing text information (i.e. metadata containing textual descriptions are one of the information. see page 3 [0040]).

Regarding claim 29, 60, and 118, Wood discloses the step of simultaneously recording a first content and a second content (i.e. multiple video input sources are available to allow simultaneous recording of multiple channels containing the matched programs. See page 2, [0037], [0038])

Regarding claim 30, 61, and 119, the system of Wood comprises the steps of determining whether the recording of the first content has been completed (see fig. 2) and simultaneously recording the second and the third content (see page 2 [0032], [0037], [0038]).

Regarding claim 31, 62, and 120, Wood anticipates the method of performing on demand play back of the first or second or third content simultaneous with the recording of the first and/or second and/or third content. See page 2 [0032], [0038].

Regarding claim 34, Wood discloses the method of receiving broadcast content. See page 2[0032].

Regarding claim 35, Wood discloses the method of on-demand viewing of selected content from aggregation of desirable content (i.e. personal channel). See page 3 [0040].

Regarding claims 63 and 93, Wood discloses a system for creating a personal video on-demand service, comprising:

A plurality (and therefore at least one) of receiving devices each of which is operatively connected to one or more content feeds (see page 2, [0038])

At least one storage medium operatively connected to said receiving devices (see page 2 [0032])

Said receiving device receiving an electronic program guide, said electronic program guide indicating a plurality of desired content to be broadcast to said receiving devices via the content feed (see page 2, [0026])

A control unit (101) operatively connected to said at least one storage medium (105) (see page 2, [0037]);

Said control device recording the desired programs indicated by said electronic program guide in said at least one storage medium to create an on-demand video library (see page 2 [0028], [0037], page 3 [0045]).

Said control unit creating a database which catalogs the potentially desired content (see page 3 [0040])

A user input device operatively connected to said control unit, said user input device permitting a user to interact with the database enter play-back commands (see page 2 [0029-0031]).

Said control unit playing back one or more of the recorded programs from said at least one storage medium on demand from the user in response to the play-back commands from said user input device (see page 3 [0039], [0040]).

Regarding claim 64, the system of Wood comprises a display device operatively connected to said at least one storage medium for displaying played back content from storage medium (i.e. video output source 107 coupled to the video recorder device and storage medium (105). See page 2 [0032], [0029])

Regarding claim 65, Wood discloses receiving device and said control unit being provided in a unit (i.e. VDR and processor 101 in one unit see page 1 [0024]), and at least one storage medium external to the unit and operatively connected to the unit (i.e. output source coupled to another video data recorder, therefore external. See page 2 [0032])

Regarding claim 70 and 98, Wood discloses receiving program guide including port for receiving program guide data from program guide source (107). See page 2 [0026].

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 13, 44, 74, 102 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood et al. (US Pre Grant Pub. 2002/0054752).

Regarding claims 13, 44, 74 and 102, Wood does not disclose providing a synch pulse for confirming the availability of the at least one storage device.

Official notice is taken that polling is a well-known technique used for confirming the availability of devices (i.e. devices can be polled to see if they are active).

It would be obvious to one of ordinary skill in the art at the time of the invention to modify Wood by using polling ("synch pulse") to check storage device status for availability, in order to establish further communication with the device. The motivation is to ensure that the storage medium is active and available for data transfers.

7. Claim 10-11, 14-15, 18-22, 36-39, 41-42, 45-46, 49-53, 66-69, 71-72, 75-76, 79-87, 90-92, 94-97, 99-100, 103-104, 107-111, are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood et al. (US Pre Grant Pub. 2002/0054752) in view of Gudesen (US Pat. 5,761,607).

Regarding claims 10, 41, 71, and 99, Wood does not disclose that the storage medium is reconfigurable.

Gudesen discloses a personal video recording system, comprising mass storage at the user site, where the storage is expandable (using one or more

storage medium), removable, replaceable storage media, and therefore reconfigurable. See column 4 lines 54-58, column 6 lines 20-27.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the video recording system of Wood in view of Gudesen's teaching by incorporating reconfigurable storage system that permits storage media to be added, removed, replaced, etc. The motivation is to provide easy scalability for increasing the storage capacity.

Regarding claims 11, 42, 72, and 100, Wood does not disclose that the storage medium is removable.

Gudesen discloses a personal video recording system, comprising mass storage at the user site, where the storage is removable (such as tapes). See column 4 lines 31-33, lines 54-58, column 8 lines 26-28.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the video recording system of Wood in view of Gudesen by providing a removable storage medium. The motivation is to provide a removable storage medium that is not fixated/integrated to a particular device, and therefore can be played in a plurality of devices.

Regarding claims 14, 36, 45, 66-67, 75, and 103, Wood does not disclose that at least one storage medium is expandable. Gudesen discloses a personal video recording system, comprising mass storage at the user site, where the storage is expandable (using one or more storage medium),

removable, and replaceable storage media. See column 4 lines 29-33, lines 54-58, column 6 lines 20-27.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the video recording system of Wood in view of Gudesen's teaching by incorporating an expandable storage system in order to provide easy scalability for increasing the storage capacity.

In further regards to claim 67, since the storage device is removable, replacable, expandable, the storage medium can be modular.

Regarding claims 15, 46, 76, and 104 Wood does not teach that the at least one storage medium is integrated or accessible via network.

Gudesen discloses a personal video recording system where the storage medium can be non-replaceable (integrated) recordable medium. See column 4 lines 29-33, lines 54-58.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the video recording system of Wood by using a non-replaceable/integrated recordable medium. The motivation is to equip a video recorder with its own storage device that may facilitate faster disk access speeds.

Regarding claim 18, 49, 79, 96, and 107, Wood does not disclose the at least one storage medium includes at least one integrated storage medium and at least one removable storage medium.

Gudesen discloses a personal video recording system where the storage media can be combination of one or more removable, or non-replacable (integrated) recordable medium. See column 4 lines 29-33, lines 54-58.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the video recording system of Wood in view of Gudesen's teaching by providing a combination of one or more removable and non-replacable storage medium. The motivation is to facilitate the video recording system with integrated storage for fast data access and a removable storage to allow the medium to be played on a plurality of devices.

In further regards to claim 96, Gudesen also shows a switching device operatively connected to said receiving device, said at least one storage medium and said control unit (i.e. internal traffic controller (206) operatively coupled to storage (201), receiving device (204) and control unit (CPU). See column 4, lines 22-25, and fig. 1b); control device controls said switching device to route content from receiver to one of the plurality of storage medium for storage or playback. Therefore the modified system containing more than one storage unit also comprises a switching means for routing data traffic to one of plurality of storage media.

Regarding claim 97, see claim 2.

Regarding claims, 19, 50, 80, and 108 the modified system comprises the means for recording or reproducing the desirable content via the at least one integrated storage medium, the at least one removable storage medium, or both.

Specifically, Wood teaches using a random accessible recordable medium, so that a video program can be simultaneously recorded and played back, therefore allowing potentially desired content to be recorded or played back via the storage medium. See Wood: page 2 [0030].

Regarding claims 20, 51, 81, 109, Gudesen teaches the step of compressing video data according to different form, according to storage devices, optimized for fast read out speed or reducing storage requirement. See Gudesen: column 6, lines 50-54. It would have been obvious to use the coding step taught by Gudesen in the modified system to use compression (coding) according to different constraints of different storage devices used, i.e. according to storage size constraints or constraints on data access speeds.

Regarding claims 21, 52, 82, and 110 the modified system comprises means for streaming desired content directly to at least one removable storage medium. Specifically, Wood teaches the step of directly streaming content to storage medium (see page 2 [0028], [0029]) and Gudesen further teaches that the storage medium is removable (see column 4 lines 54-58, column 8 lines 26-28).

Regarding claims 22, 53, 83, and 111, the modified system comprises the step of recording the desirable content in at least one removable storage medium at faster or slower than normal speed. Specifically, Wood teaches that video data is received and then compressed before stored. The compression process

inherently involves a delay due to processing, before storing, and therefore is stored at a slower than normal speed. See page 2 [0032], [0033].

Regarding claim 37, 68, 69, and 94, Wood discloses decompressing (decoding) compressed (encoded) video prior to playback (see page 2 [0033], page 3 [0040]). Wood does not disclose that content can be encrypted.

Gudesen discloses a personal video recording system where the storage media, comprising encoder means for encrypting content prior to stored (see column 4, lines 34-40), and decoder means for decrypting video for playback (see column 4, lines 63-67).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Wood in view of Gudesen by providing encryption means for encrypting data and decryption means for decrypting the encrypted data. The motivation is to provide a fraud prevention mechanism for preventing unauthorized access of data.

In regards to claim 38, the modified system comprises the step of purchasing a decryption authorization to enable said decrypting step (i.e. authorization access can be purchased through some exchange of fee for pay per view films). See Gudesen: column 5 lines 32-40, column 6, lines 11-16, and lines 55-59.

In regards to claim 39, the modified system comprises the step of purchasing after receiving (i.e. purchasing is performed to receive an authorization, a video is available on stored medium first and then a request for

receiving authorization key for decoding the video is sent to the server). See Gudesen: column 4, lines 63-67, column 5 lines 32-40, column 6, lines 55-59.

In further regards to claim 69 and 94, the content feed supplies content in an encrypted form (i.e. receiving data in encoded/encrypted form) and stores the desired content in the encrypted form (i.e. storing encoded data in disk. See Gudesen column 6, lines 47-54). A switching device is operatively connected to said receiving device, said at least one storage medium and said control unit (i.e. internal traffic controller (206) operatively coupled to storage (201), receiving device (204) and control unit (CPU). See column 4, lines 22-25, and fig. 1b); a decryption unit operatively connected to said switching device and to said at least one storage medium, said decryption unit decrypting the desired programs supplied from said at least one storage medium (see Gudesen, column 4 lines 33-40 and fig. 1b); control device controls said switching device to route the encrypted content to either said at least one storage medium or to said decryption unit (i.e. internal traffic controller routes encrypted data from storage to decryption (decoder) for playback. See Gudesen column 4, lines 63-67).

Regarding claim 95, Wood does not disclose a first and second display devices, a first switching device coupled to a decrypter device and a second display device coupled to first and second display devices and the decrypter device for switching decrypted content to first and second display devices.

Gudesen discloses means of employing a switching unit for retrieving data from the content feed supplies or storage disks in an encrypted form and

decrypting the data for subsequent display. The first switching unit is coupled to storage, decrypting device and the display (i.e. internal traffic controller (206) operatively coupled to storage (201), receiving device (204) and control unit (CPU). See column 4, lines 22-25, lines 33-40 and fig. 1b. The switching device therefore the encrypted content to either said at least one storage medium or to said decryption unit (i.e. internal traffic controller routes encrypted data from storage to decryption (decoder) for playback. See Gudesen column 4, lines 63-67).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Wood by utilizing a decryption unit and a first switching device as taught by Gudesen in order to route the encrypted data traffic between storage and/or decryption device. The motivation is to route decrypted data from storage device or content input feed through decryption unit for display.

The modified system lacks a second display device and a second switching unit for switching display from decryption unit to the first and/or second display devices.

Official notice is taken that it is well known for multiple display units (televisions) to be coupled to decoder units. Such a situation inherently comprises a second switching means for routing the decoded video to the multiple display units.

It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the system and use a decoder with plurality output connected to multiple display units, where a second switching is inherently connected to the decryption unit (since it provides the output) and therefore operatively connected to the first switching device. The motivation is to provide the decoded video signal to plurality of display units.

Regarding claim 84 the modified system comprises the step of creating a database entry for each program recorded on the at least one storage medium. See Wood page 3 [0040], page 4 [0064], where for each show recorded, metadata is created and stored.

Regarding claim 85 the modified system comprises the step of user editing the database via a graphical user interface. Specifically, Wood teaches that the data in personal channel can be viewed and edited (such as labels, delete shows) by the user via a graphical user interface i.e. a user interface that is displayed in order to allow the user to view or edit. See page 4 [0060], [0061], [0063].

Regarding claim 86, the modified system comprises each entry describing the program it is associated with. Specifically, Wood discloses that each metadata is some form of description of the program such as category, cast, and program description. See page 3 [0040], page 4 [0064].

Regarding claim 87, the modified system comprises entry containing text information. See page 3 [0040], Wood discloses metadata containing textual descriptions are one of the information.

Regarding claim 90, see claim 29.

Regarding claim 91, see claim 30.

Regarding claim 92, see claim 31.

8. Claims 12, 73, and 101 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood (US Pre Grant Pub. 2002/0054752) in view of Halford (US Pat. 5,283,791).

Regarding claims 12, 73, and 101, Wood's system lacks the step of synchronizing access to at least one storage medium to avoid periods of inaccessibility.

Halford teaches a method of synchronizing access to storage medium in a disk array, in order to ensure that failure of any one storage device does not interrupt the operation of storage and retrieval, thus providing a highly fault tolerant storage device. See column 6, lines 18-25.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Wood in view of Halford by synchronizing disk access in order to provide fault tolerance by guaranteeing disk availability for storage and retrieval, even in case of a disk failure.

9. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wood (US Pre Grant Pub. 2002/0054752) in view of Gudesen (US Pat. 5,761,607) as applied to claim 40 above and further in view of Halford (US Pat. 5,283,791).

Regarding claim 43, the modified system lacks the step of synchronizing access to at least one storage medium to avoid periods of inaccessibility.

Halford teaches a method of synchronizing access to storage medium in a disk array, in order to ensure that failure of any one storage device does not interrupt the operation of storage and retrieval, thus providing a highly fault tolerant storage device. See column 6, lines 18-25.

It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the system in view of Halford by synchronizing disk access in order to provide fault tolerance by guaranteeing disk availability for storage and retrieval, even in case of a disk failure.

10. Claims 16, 47, 105 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood (US Pre Grant Pub. 2002/0054752) in view of Hassell et al. (US Pre Grant Pub. 2004/0128658).

Regarding claims 16, 47, and 105, Wood does not disclose that the at least one storage medium is automatically loaded.

Hassell teaches video playback system where when a user selects a program that is not on the current disk then the system automatically loads the disk containing the program, thereby providing 'juke-box' functionality. See page 8 [0089].

It would have been obvious to one of ordinary skill in the art to modify the system of Wood with Hassell's teachings of automatically loading a storage medium in order to retrieve a requested data. The motivation is to allow the system to automatically determine the storage medium that a requested data is on and load it for playback, thus alleviating the user from the burden of searching and loading.

11. Claim 77 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wood (US Pre Grant Pub. 2002/0054752) in view of Gudesen (US Pat. 5,761,607) as applied to claim 71 above and further in view of Hassell et al. (US Pre Grant Pub. 2004/0128658).

Regarding claim 77, the modified system does not disclose that the at least one storage medium is automatically loaded.

Hassell teaches video playback system where when a user selects a program that is not on the current disk then the system automatically loads the disk containing the program, thereby providing 'juke-box' functionality. See page 8 [0089].

It would have been obvious to one of ordinary skill in the art to further modify the system with Hassell's teachings of automatically loading a storage medium in order to retrieve a requested data. The motivation is to allow the system to automatically determine the storage medium that a requested data is on and load it for playback, thus alleviating the user from the burden of searching and loading.

12. Claims 27, 58, and 116 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood (US Pre Grant Pub. 2002/0054752) in view of Sezan et al. (US Pat. 6,236,395)

Regarding claims 27, 58 and 116, Wood does not disclose that the entry comprises image information, which is one of a thumbnail, a preview and a snippet.

Sezan discloses maintaining program description information containing program profiles containing details of program as well as program views that contain thumbnails. The addition of thumbnails in addition to program profile allows users to search for a program to see as well as search visually within a particular program. See column 4, lines 40-67.

It would have been obvious to one of ordinary skill in the art to modify the system of Wood in view of Sezan by including thumbnails as program description entry, in order to allow a user to for a program as well as data within a program.

13. Claim 88 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wood (US Pre Grant Pub. 2002/0054752) in view of Gudesen (US Pat. 5,761,607) as applied to claim 87 above, and further in view of Sezan et al. (US Pat. 6,236,395)

Regarding claim 88, the modified system does not disclose that the entry comprises image information, which is one of a thumbnail, a preview and a snippet.

Sezan discloses maintaining program description information containing program profiles containing details of program as well as program views that

contain thumbnails. The addition of thumbnails in addition to program profile allows users to search for a program to see as well as search visually within a particular program. See column 4, lines 40-67.

It would have been obvious to one of ordinary skill in the art to further modify the system in view of Sezan by including thumbnails as program description entry, in order to allow a user to for a program as well as data within a program.

14. Claims 28, 59, and 117 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood (US Pre Grant Pub. 2002/0054752) in view of Tsukidate et al. (US Pat. 6,714,722).

Regarding claims 28, 59, and 117, Wood fails to disclose a printer for printing at least part of the entry on a label affixable to the storage medium.

Tsukidate teaches a printer for printing part of a program data entry on a label affixable to the storage medium. See figure 1, column 8 lines 1-5.

It would have been obvious to one of ordinary skill in the art to modify the system of Wood in view of Tsukidate by including a printer for printing entry on a label affixable to the storage medium. The motivation is to create labels to identify programs recorded on a particular storage medium.

15. Claim 89 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wood (US Pre Grant Pub. 2002/0054752) in view of Gudesen (US Pat. 5,761,607) as applied to claim 87 above, and further in view of Tsukidate et al. (US Pat. 6,714,722).

Regarding claim 89, the modified system fails to disclose a printer for printing at least part of the entry on a label affixable to the storage medium.

Tsukidate teaches a printer for printing part of a program data entry on a label affixable to the storage medium. See figure 1, column 8 lines 1-5.

It would have been obvious to one of ordinary skill in the art to further modify the system in view of Tsukidate's teachings by including a printer for printing entry on a label affixable to the storage medium. The motivation is to create labels to identify programs recorded on a particular storage medium.


Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Mandal et al. (US Pat. 6,170,009) discloses the use of polling to determine availability of devices (column 6, lines 9-11).
17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Usha Raman whose telephone number is (703) 305-0376. The examiner can normally be reached on Mon-Fri: 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached on (703) 305-4380. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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12-22-04


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